

claims renumbered  
4/28/05

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In the claims:

1. (Currently amended) A method of treating a liquid or a slurry of a liquid with an ultrasonic energy comprising:
- 5 providing a first member being permeable to a medium, and a first vibrating device and the first member having a first gap formed therebetween, the first gap representing a first distance;
- 10 providing a second member aligned with the first member and providing a second vibrating device, the second vibrating device and the second member having a second gap formed therebetween, the second gap representing a second distance;
- 15 feeding the medium between the first and second members; and the first and second vibrating devices generating pulses through the first and second members, respectively, to form imploding bubbles in the medium disposed between the first and second members, the bubbles having a critical diameter prior to implosion that is greater than the first distance and the second distance to prevent ~~the imploding~~ bubbles from
- 20 ~~growing~~ being disposed in the first and second gaps ~~to a size greater than the first and second distances.~~
2. (Currently amended) The method according to claim 1 wherein the method further comprises providing a fermentation tank in fluid communication with the first and second members
- 25 and feeding ~~the~~ a slurry to a the fermentation tank.

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Ex. Amdt.  
4/28/054 presented  
3. (Previously amended)

The method according to claim 2 wherein the method further comprises creating an anaerobic environment in the fermentation tank prior to receiving the slurry.

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4. (Currently amended) The method according to claim 1 wherein the method further comprises gradually narrowing a third gap between the first and second members until a fourth gap (235) is reached between the first and second members and forming an angle (alpha) between the first member and the second member so that the first and second members are wedge-shaped.

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5. (Currently amended) The method according to claim 4 wherein the method further comprises collecting protoplasm from collapsed bacteria and other colloidal substances from the ~~ultrasonic treatment of the sludge slurry in a drain water and bringing the protoplasm into a mixer and mixing the protoplasm with the ultrasound treated slurry.~~

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6. (Currently amended) The method according to claim 5 wherein the method further comprises removing air from the slurry from the mixer prior to pumping the slurry to the fermentation tank.

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7. (Currently amended) The method according to claim 2

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wherein the method further comprises circulating the slurry from the fermentation tank during removal of dissolved biogas in a circulation conduit that is in fluid communication with the fermentation tank ~~and removing biogas from the slurry before pumping the slurry back into the fermentation tank.~~

8. (Currently amended) The method according to claim 1 wherein the method further comprises sending ~~the~~ a slurry in ~~the~~ a fermentation tank back to the first member and treating the slurry with ultrasound from ~~the~~ transducers.

9. (Currently amended) The method according to claim 8 wherein the method further comprises ultrasound treating the slurry prior to sending the slurry to a press unit ~~(270)~~.

10. (Currently amended) A method of treating a medium with an ultrasonic energy comprising:  
providing a first movable endless member for treatment of a medium, and a first ultrasonic transducer disposed a first distance from the first member, a second movable endless member disposed opposite to the first member and a second ultrasonic transducer disposed at a second distance from the second member;  
moving the first and second members;  
feeding the medium between the first and second members; and  
the transducers generating pressure pulses through the first

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and second members to form imploding bubbles in the medium disposed between the members, the bubbles having a critical diameter prior to implosion that is greater than the first distance and the second distance to prevent the bubbles from

5 ~~growing to a size greater than~~ being captured between the first and second distances.